UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

MOLDEX-METRIC, INC., Plaintiff, vs. 3M COMPANY and 3M INNOVATIVE PROPERTIES COMPANY, Defendants.	Civil No. 14-1821 (JNE/FLN) **DECLARATION OF JAMES E. HORNSTEIN IN SUPPORT OF MOLDEX'S MOTION FOR SUMMARY JUDGMENT ON 3M'S "UNCLEAN HANDS" AFFIRMATIVE DEFENSE**

I, JAMES E. HORNSTEIN, hereby declare and state as follows:

1. I am of fully legal age and am competent to make the statements contained in this Declaration.

2. I am a resident of Studio City, California, and I am an attorney admitted to practice law in the State of California. I am employed by Moldex-Metric, Inc., the plaintiff in this lawsuit. My current title is Vice-President of Operations and General Counsel. In that role, I serve as the lead attorney for Moldex, and I serve on the senior executive team to conduct the operations of the company. In my role as Vice-President of Operations, I oversee or co-manage many aspects of the company's operations including production, R&D, retail distribution, medical, HR, IT, and all legal functions.

3. I was deposed in this action on September 25, 2015. Attached hereto as Exhibit 1 is a true and correct copy of selected pages from the transcript of my September 25, 2015 deposition testimony in this action (FILED UNDER SEAL).

4. In or around 2007, I and others at Moldex became aware of the need within the U.S. military to address hearing loss occurring on the battlefield, and that the military was looking for an earplug that offered selective attenuation capabilities to compete with 3M's Combat Arms earplug. After learning about the military's need for improved impulse sound hearing protection devices, Moldex started a project to develop a dual-mode selective attenuation earplug for use by the military. I was personally involved in Moldex's earliest discussions with the Army about Moldex developing a proposed new hearing protector product at a price lower than the 3M Combat Arms product.

5. In 2008, Moldex built a first prototype hearing protector that was designed to equal or exceed the protection provided by the 3M Combat Arms, which provided the dual sound attenuation modes and offered features and benefits greater than the 3M Combat Arms.

6. After Moldex personnel developed its first prototype in February 2008, there followed at least four successive prototype versions of the impulse earplugs. Between 2008 and 2010 Mary Binseel, Team Leader, Auditory Research Team, U.S. Army Research Laboratory, Human Research and Engineering Directorate, Visual and Auditory Processes Branch agreed to provide testing assistance at the Aberdeen Proving Ground ("APG") facility in Maryland.

7. Between 2008 through 2011 I and others at Moldex had a number of calls, meetings, and correspondence with U.S. Army representatives about the dual mode selective attenuation prototype earplugs Moldex was developing. During this time, the Army's person in charge of the hearing protection program was Col. Eric Fallon (who

replaced Douglas Ohlin) and then Lt. Col. Marjorie Grantham, whose title was Program Manager, Army Hearing Program, U.S. Army Public Health Command.

8. Beginning in September 2008 and continuing until 2011, I was part of the Moldex team that requested Kevin Michael and Associates, an independent NVLAP-qualified hearing protection testing laboratory in State College, Pennsylvania, to work with the Army testing lab at APG to test the Moldex impulse plug prototype against the 3M Combat Arms for impulse sound performance using the Army protocol for such impulse tests. The Army agreed to do the testing using the APG facility and with oversight by Mary Binseel.

9. In late June, 2010, Kevin Michael and Mary Binseel tested a revised prototype of the Moldex impulse plug against the 3M Combat Arms at the Army APG test lab. Test results showed that this Moldex prototype performed as well as and, at many frequencies, better than the 3M Combat Arms against impulse sounds.

10. In early October 2010, I spoke by phone with Lt. Col. Grantham, who had taken over the position as the Army Hearing Command Program Manager and was in charge of reviewing and ultimately deciding on approval for Moldex's impulse hearing protection earplug. I explained to her the history of Moldex's efforts to meet the Army's requirements for qualifying a selective attenuation hearing protection device that would provide a better and less expensive alternative to the 3M Combat Arms product. In that first conversation, I told Lt. Col. Grantham that Moldex wanted to meet the Army's technical requirements and would not seek to release the product into other non-U.S. military markets until the product met the Army's needs and requirements. Lt. Col

Grantham told me that she was coordinating the input of three different Army hearing labs to resolve a standard that our impulse plug would need to meet for acceptance and purchase by the Army. We set a further meeting at APG for November 8, 2010 to try to move forward on resolving the specification Moldex would need to meet in order to complete the project and move to procurement by the Army.

11. In preparation of my November 8, 2010 meeting with Lt. Col. Grantham and her team of audiologists at APG, I asked Moldex's Ninneth Martinez and Bernard Mishkin to put together a PowerPoint slide presentation that could be printed and handed out at the meeting. The purpose of these slides was to convey information to members of Army Hearing Command regarding the Noise Reduction Rating ("NRR") testing performed on Moldex's prototype earplug by Michael and Associates laboratory, as well as the impulse noise testing performed on Moldex's prototype and 3M's dual-ended Combat Arms at APG. A copy of these PowerPoint slides, which were previously marked at my deposition as Deposition Exhibit 1037, is attached to this declaration as Exhibit 1037.

12. On November 8, 2010, Dr. Jeffrey Birkner, Moldex's Vice President of Technical Services, and I went to APG and met with Lt. Col. Grantham and her team of audiologists. At or around the time of the November 8, 2010 meeting, during my review of the printed PowerPoint slides, I noticed that one of the slides (entitled "Comparison of Moldex Impulse Earplugs with Combat Arms") mistakenly indicated that 3M claimed that the NRR on the open end of its dual-ended Combat Arms earplug was 8 dB, instead of the 0 dB NRR actually claimed and reported by 3M on the open end of the dual-ended

Combat Arms. To the best of my recollection, after discovering this error, I either removed this page from the printed copies of the slides presented at the meeting, or I called attention to the mistake during the meeting.

13. On November 30, 2015, while attending the deposition of a former Moldex employee, Daniel Dix, I was first made aware of inaccuracies displayed in some of the online promotional materials for Moldex's M-Series Earmuffs and Special Ops Earmuffs. At this deposition, 3M's counsel questioned Mr. Dix regarding inconsistencies between the mean attenuation and standard deviation data ("supporting attenuation data") displayed on M-Series and Special Ops packaging compared to the supporting attenuation data displayed on certain M-Series and Special Ops online "data sheets." The next day, acting in my business capacity as Vice President of Operations at Moldex, I initiated an investigation of the NRR and supporting attenuation data on the M-Series Earmuff and Special Ops Earmuff packaging and promotional materials. Below, I provide background information regarding the M-Series and Special Ops Earmuff NRR testing, packaging, and promotional materials, along with the facts I uncovered during my investigation.

14. It is my understanding that hearing protection devices sold in the United States must be tested for, and labeled with, a "Noise Reduction Rating" or "NRR," as called for by Environmental Protection Agency ("EPA") regulations, 40 C.F.R. § 211.201 *et seq.*, under the Noise Control Act ("NCA"). 42 U.S.C. § 4901 *et seq.* It is also my understanding that the measurement of the NRR of a hearing protector is governed by a noise measurement procedure published by the American National Standards Institute,

known as ANSI S3.19-1974. To obtain the data that is used to calculate an NRR, under ANSI 3.19, ten test subjects are tested, and each subject is tested three separate times. In each test, the subject is exposed to test signals at nine different frequencies, both with and without the test earplug inserted, so as to measure the earplug's attenuation of the test signal at each frequency. After this testing is complete, for each tested frequency there will be a "mean attenuation" which is simply the overall average amount of attenuation received across all subjects and test trials, and there will also be a standard deviation for each frequency which represents the degree to which the test subjects' individual attenuation levels are spread out from the mean attenuation level for each frequency. It is my understanding that the NRR, mean attenuations and standard deviations obtained from a test performed in compliance with ANSI S3.19 must be displayed on a hearing protector's packaging before it can sold in the United States, and that this information is typically displayed in table format.

15. On Moldex's website, *www.moldex.com*, Moldex provides "data sheets" for its M-Series and Special Ops Earmuffs. These data sheets are promotional materials that provide general information about the Earmuffs, along with NRRs and supporting attenuation data for each Earmuff, and are only available on Moldex's website. "Supporting attenuation data" consists of the mean attenuations and standard deviations data that are usually displayed in table format, as discussed above.

16. In 2007, five years after Moldex began selling its M-Series product line, Moldex decided to remove polyvinyl chloride ("PVC") from all of its products and packaging in order to achieve a more environmentally friendly product line. These

product modifications necessitated new NRR testing on all M-Series and Special Ops Earmuffs. As a result, Moldex engaged an independent laboratory, Michael & Associates, Inc., to perform these 2007 NRR labeling tests on Moldex's M1, M2, M3, and Special Ops M1 and M2 Earmuffs. Attached to this declaration as Exhibits 2-10 (FILED UNDER SEAL) are the NRR labeling test reports from Michael & Associates laboratory for each M-Series and Special Ops Earmuff. They bear identifying numbers that are assigned by Michael & Associates that all start with a "Q" and end with an "A."

17. After these NRR labeling tests were complete, Moldex revised two of its earmuff data sheets in 2007: (1) a data sheet for the M-Series M1 Premium Earmuff, M2 Multi-Position Earmuff, and M3 Cap-Mounted Earmuff ("2007 M-Series Data Sheet"); and (2) a data sheet for the M-Series Special Ops M1 and M2 Earmuffs ("2007 Special Ops Data Sheet"). Attached to this Declaration as Exhibits 11 and 12 are copies of the 2007 M-Series Data Sheet and the 2007 Special Ops Data Sheet, respectively, along with the internal Moldex approval forms relating to such Data Sheets. The M2 Earmuff can be used in three configurations, namely, over-the-head, behind-the-head, and under-the-chin, and thus, the 2007 M-Series and Special Ops Data Sheets display supporting attenuation data and an NRR for each configuration.

18. As part of my investigation, I confirmed that both of the 2007 Data Sheets were created by a graphic artist formerly employed by Moldex, with assistance from Moldex's marketing department, and were then reviewed and approved by multiple Moldex employees, including myself. Despite this review process which did not involve circulating the underlying Michael & Associates test results to the reviewers outside of

the graphic artist, the final versions of both 2007 Data Sheets displayed supporting attenuation data for certain earmuffs that was incorrectly copied by the graphic artist from the wrong M-Series models. However, the NRRs listed for each Earmuff on the 2007 M-Series and Special Ops Data Sheets are correct.

19. The table below sets forth the 2007 Michael & Associates NRR test reports, for each M-Series and Special Ops Earmuff, that contain the supporting attenuation data and NRRs that should have been displayed on the 2007 M-Series and Special Ops Data Sheets, as well as the Michael & Associates test reports that contained the supporting attenuation data and NRRs that *were actually* displayed on the 2007 Data Sheets:

Moldex Product	**Correct Supporting Attenuation Data**	**Supporting Attenuation Data Displayed on 2007 Data Sheet**	**Michael & Associates Reported NRR**	**Moldex's Displayed NRR**
M1 Premium Earmuff	Michael & Associates Test Report **Q1259A (Ex. 2)**	Michael & Associates Test Report **Q1274A (Ex. 3)**	29	29
M2 over-the-head Earmuff	Michael & Associates Test Report **Q1274A (Ex. 3)**	Michael & Associates Test Report **Q1274A (Ex. 3)**	26	26
M2 under-the-chin Earmuff	Michael & Associates Test Report **Q1289A (Ex. 5)**	Michael & Associates Test Report **Q1291A (Ex. 9)**	24	24
M2 behind-the-head Earmuff	Michael & Associates Test Report **Q1288A (Ex. 4)**	Michael & Associates Test Report **Q1290A (Ex. 10)**	24	24
M3 cap-mounted Earmuff	Michael & Associates Test Report **Q1275A (Ex. 6)**	Michael & Associates Test Report **Q1275A (Ex. 6)**	24	24
M1 Special Ops	Michael &	Michael &	29	29

Earmuff	Associates Test Report **Q1280A (Ex. 7)**	Associates Test Report **Q1274A (Ex. 3)**		
M2 Special Ops Earmuff (over-the-head)	Michael & Associates Test Report **Q1281A (Ex. 8)**	Michael & Associates Test Report **Q1281A (Ex. 8)**	26	26
M2 Special Ops Earmuff (under-the-chin)	Michael & Associates Test Report **Q1291A (Ex. 9)**	Michael & Associates Test Report **Q1291A (Ex. 9)**	24	24
M2 Special Ops Earmuff (behind-the-head)	Michael & Associates Test Report **Q1290A (Ex. 10)**	Michael & Associates Test Report **Q1290A (Ex. 10)**	24	24

20. As shown above, the correct supporting attenuation data for the M3 cap-mounted Earmuff, M2 Earmuff (over-the-head), M2 Special Ops Earmuff (over-the-head), M2 Special Ops Earmuff (under-the-chin), and M2 Special Ops Earmuff (behind-the-head) were displayed on the 2007 M-Series Data Sheets. The supporting attenuation data that was incorrectly displayed on the 2007 M-Series Data Sheet for the M2 Earmuff (under-the-chin and behind-the-head) were actually the supporting data for the corresponding M2 Special Ops Earmuffs (under-the-chin and behind-the-head). Furthermore, the supporting attenuation data that is displayed on the 2007 Data Sheets for the M1 Earmuff and the M1 Special Ops Earmuff were actually the supporting data for the M2 Earmuff (over-the-head).

21. The same graphic artist, again with the assistance of Moldex's marketing department, revised both of the aforementioned Data Sheets in 2009. Attached to this Declaration as Exhibits 1129 and 1130, previously marked as Deposition Exhibits 1129

and 1130, are the 2009 M-Series Data Sheet and the 2009 Special Ops Data Sheet, respectively. Aside from the supporting attenuation data displayed for the M2 Earmuff (over-the-head), the supporting attenuation data displayed on the 2007 Data Sheets are identical to the supporting attenuation data displayed on the 2009 Data Sheets. In regards to the M2 Earmuff (over-the-head), while the 2007 M-Series Data Sheet displays the correct supporting attenuation data for the M2 Earmuff (over-the-head), the 2009 M-Series Data Sheet does not; instead, the M2 Earmuff (over-the-head) supporting attenuation data displayed on the 2009 M-Series Data Sheet is actually the supporting attenuation data for the M2 Special Ops Earmuff (over-the-head). Again, however, the correct NRR is displayed for each Earmuff on the 2009 Data Sheets.

22. There was one other mistake included on both 2009 Data Sheets. On the first page of each of these Data Sheets, there is an "NRR 33 dB" bubble in the lower left-hand corner, which does not accurately reflect the NRR of any M-Series or Special Ops Earmuff. This "33 NRR dB" bubble was most likely copied from Moldex's 2009 Data Sheet for its Pura-Fit foam earplugs, which do have an NRR of 33. In my investigation, I learned that Moldex's former graphic artist was using the 2009 Pura-Fit data sheet as a template for the 2009 M-Series and Special Ops Data Sheets. Two other bubbles displayed on the Pura-Fit data sheet were also placed on the 2009 M-Series and Special Ops Data Sheets by Moldex's former graphic artist, namely, a "Michael & Associates Independent Test" bubble and a "PVC Free" bubble. Attached to this Declaration as Exhibit 13 is a true and correct copy of the 2009 Pura-Fit earplugs data sheet, bearing production bates numbers Moldex00069581 – 69582.

23. When I learned about the above-listed discrepancies in the Data Sheets, I investigated the history of Moldex's actual product packaging for its M-Series and Special Ops Earmuffs. I confirmed during my investigation that the supporting attenuation data and NRRs displayed on the packaging of M-Series Earmuffs and Special Ops Earmuffs is correct and accurately reflects the attenuation results obtained from the NRR labeling test for each Earmuff. Attached to this Declaration as Exhibits 14-18 are representative images of the product packaging for each M-Series and Special Ops Earmuff.

24. In December 2015, Moldex revised the M-Series and Special Ops Earmuff Data Sheets by replacing the incorrect supporting attenuation data with the correct supporting attenuation data, and by replacing the "33 NRR dB" bubbles with accurate NRR bubbles for each Earmuff. Attached to this Declaration as Exhibits 19 and 20 are true and correct copies of these revised Data Sheets currently in use at Moldex.

25. Further, in early February 2016, I responded to a February 4, 2016 letter to Moldex from 3M's outside counsel in this matter, David Gross. In his letter, Mr. Gross pointed out additional incorrect supporting attenuation data displayed on certain webpages of Moldex's website and incorrect revision dates on the 2015 revised Data Sheets. Attached as Exhibit 21 is a true and correct copy of Mr. Gross' February 4, 2016 letter to Moldex. Moldex immediately updated its website and revised its Data Sheets with corrected information and sent a letter to Mr. Gross confirming that such corrections were made. Attached as Exhibit 22 is a true and correct copy of my February 4, 2016 response to Mr. Gross's letter.

26. At no time prior to Mr. Dix's November 30, 2015 deposition was I personally aware of any of the inaccuracies brought to light by 3M's counsel during such deposition.

I DECLARE, UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

Executed on: April 1, 2016

James E. Hornstein